



Subject Name:- Computer science

● **Topic Name:-** Introduction to c lang

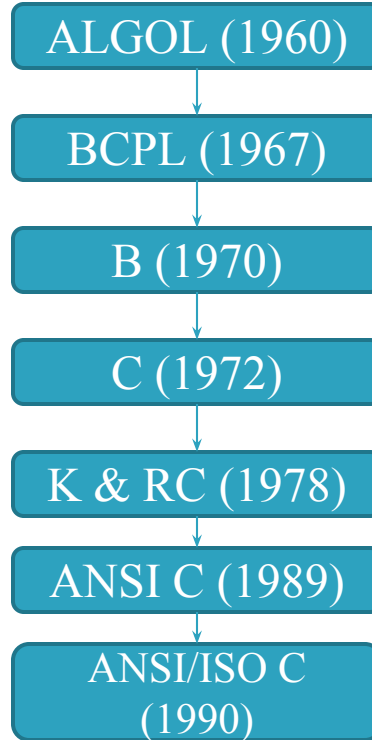
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Programming Language

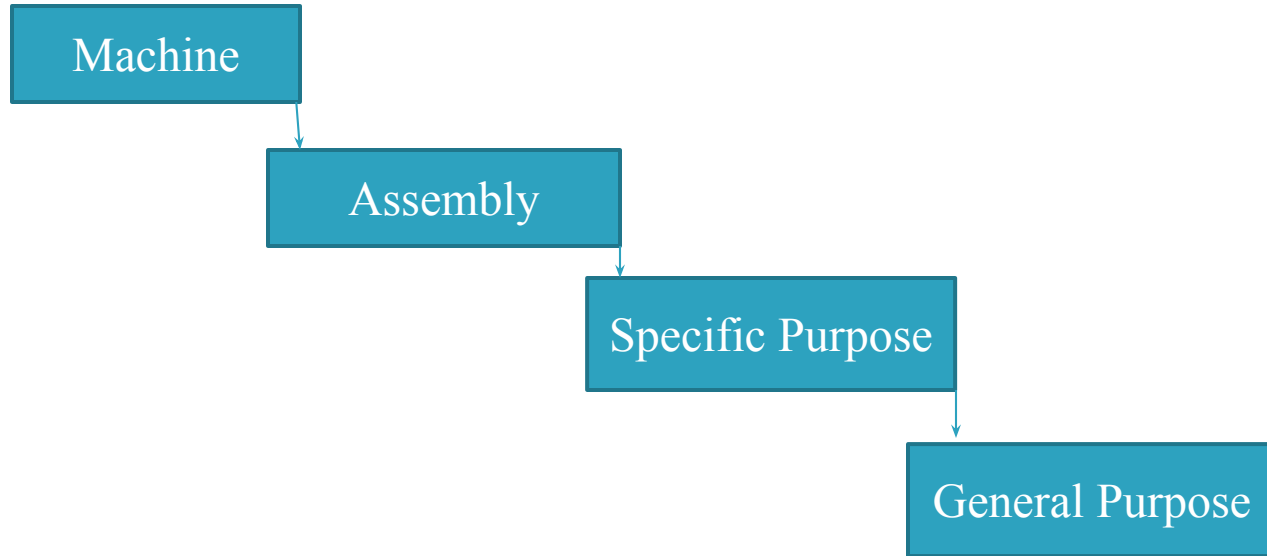
- It is a tool to develop different type of software.
- It is a language that has been used to give instructions to the computer to perform specific task.
- We can develop any type of application i.e. windows-based , web-based and mobile application also .
- Some of the programming language supports window-based and some supports web-based .

Origin of C

BCPL and B are "type less" languages whereas C provides a variety of data types. In 1972 Dennis Ritchie at Bell Labs writes C and in 1978 the publication of The C Programming Language by Kernighan & Ritchie caused a revolution in the computing world.



Hierarchy of language



What is C?



C is a high-level and general purpose programming language that is ideal for developing firmware or portable applications. Originally intended for writing system software, C was developed at Bell Labs by Dennis Ritchie for the Unix Operating System (OS) in the early 1970s.

Levels of Programming Language

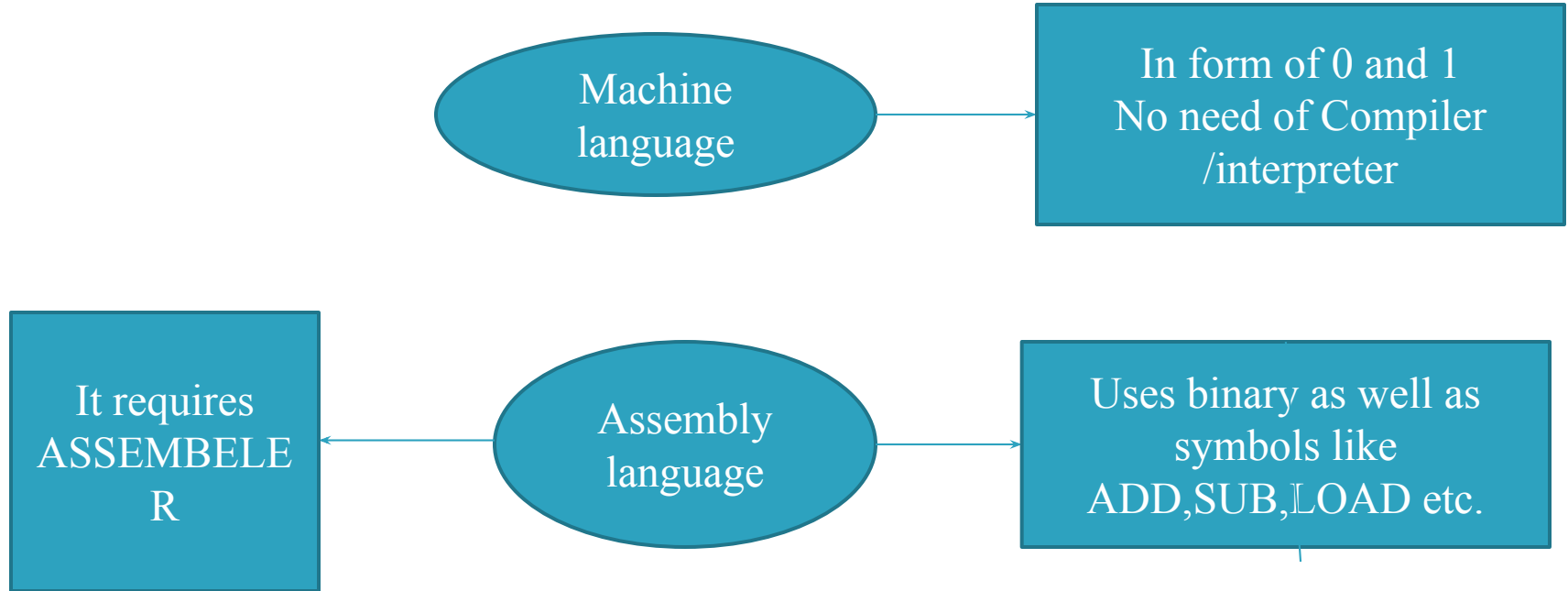
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- Low Level

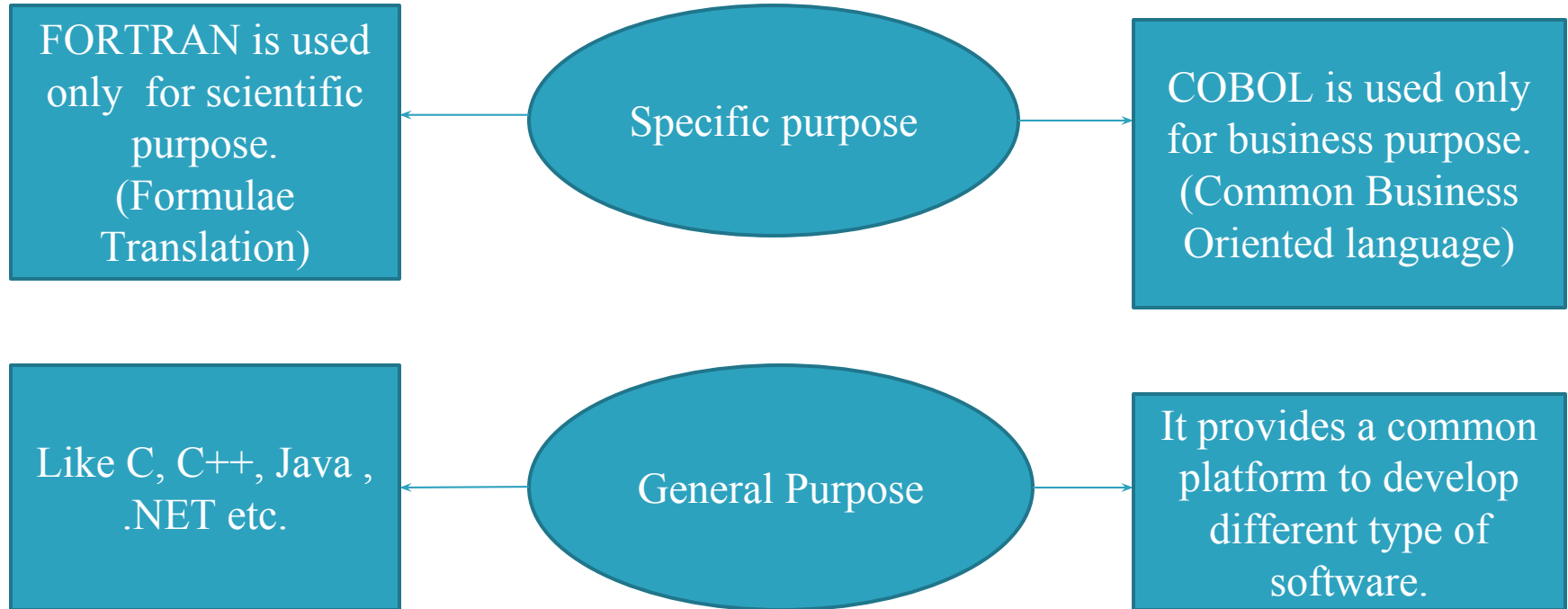
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- High Level

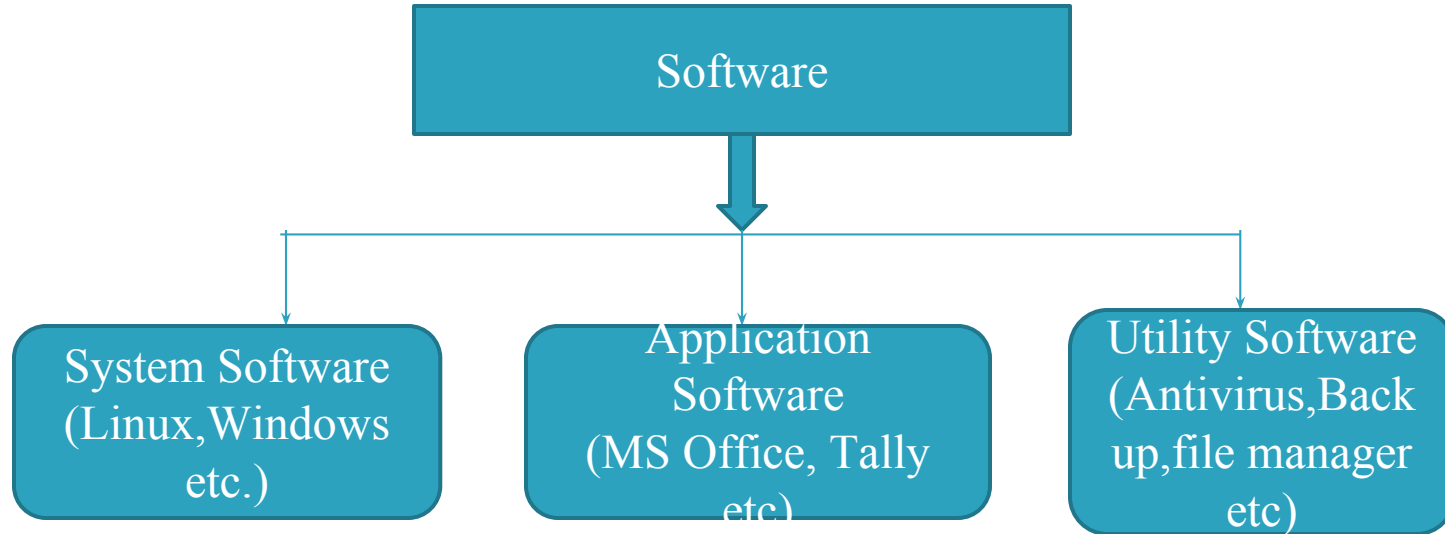
Low Level



High Level



Types of Software



Types of Application Software

Stand Alone
Application

A Software that runs on a single system at a time.

Ex:- A billing Software used by the shopkeeper.

Networking based
Application
Software

A software that runs on a multiple system at a time.

Ex:- A billing software used in the malls.

Utility Software

- It improves the function of computer infrastructure to help users performs multiple tasks efficiently.
- It is designed to help analyze, configure, optimize or maintain a computer and enhance the computer's performance.
- It is a program that performs a specific task, which is usually related to managing the system resources.

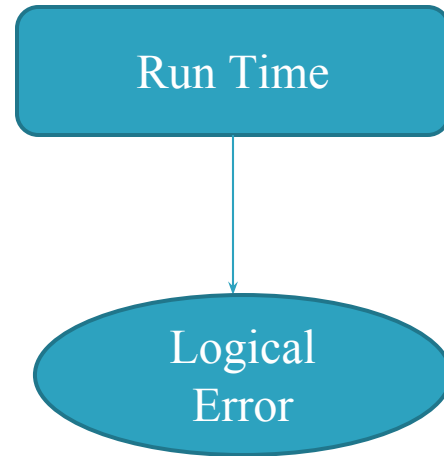
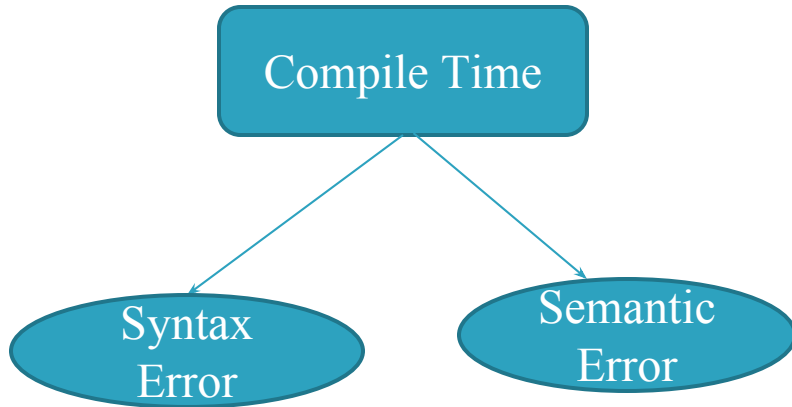
Ex:- All antiviruses, Disk Repair, Disk Cleaner, Registry Cleaner etc.

Compiler Vs. Interpreter

- Compiler is a computer program that transforms code written in a high-level programming language into the machine code.
- It will convert the code into machine code (.exe) before program run.

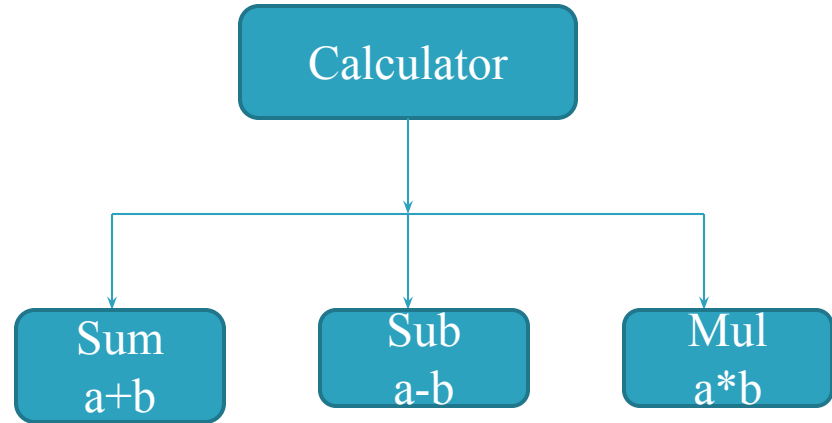
- Interpreter is a computer program which converts each high level program statement into the machine code.
- It will convert code into machine code when the program is run.

ERROR



Structured Programming

C is a structured programming language and it follows top to bottom approach. It works on the basis on divide and conquer rule.



Advantage of Structured P/L

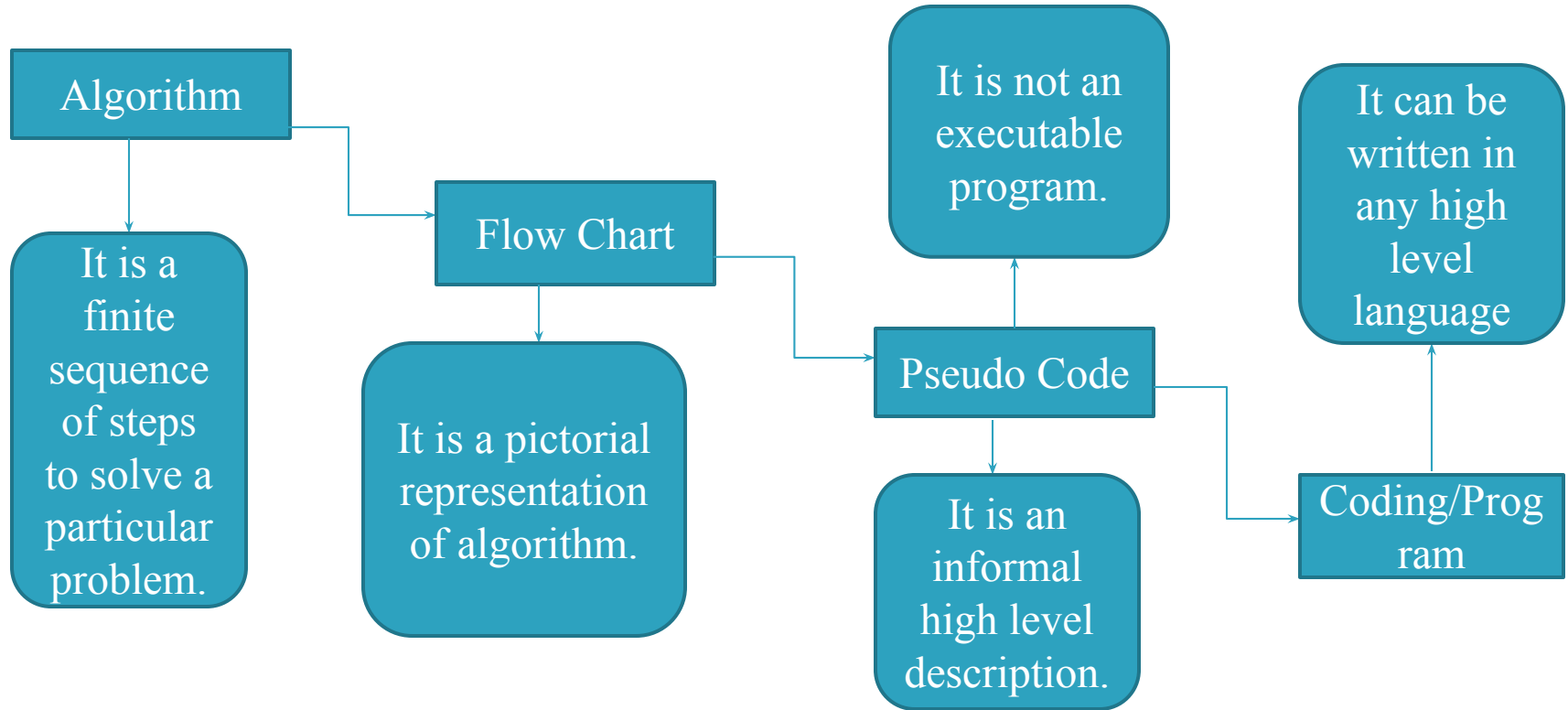
It is user friendly and very easy to understand.

It is easier to learn and also to maintain.

They require less time to write.

These are mainly problem oriented.

PDLC



Features of C:

- ❖ Structure Oriented
- ❖ Platform Dependent
- ❖ Compiler Based
- ❖ Simple and easy to learn
- ❖ Huge function library
- ❖ Uses of pointer concept
- ❖ Power Full
- ❖ Case Sensitive

THANKS